CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

December 22, 2008

Doug Wheeler
Vice President
GWF Energy LLC
4300 Railroad Avenue
Pittsburg, CA 94565

Dear Mr. Wheeler,

HENRIETTA PEAKER PROJECT AMENDMENT (01-AFC-18C) DATA REQUESTS

Pursuant to Title 20, California Code of Regulations, section 1769, the California Energy Commission staff requests the information specified in the enclosed data requests. The information requested is necessary to more fully understand the modifications proposed in the amendment petition filed on October 14, 2008 by GWF Energy, LLC, project owner, for the Henrietta Combined-Cycle Power Plant Project.

Specifically, the requested information will assist Energy Commission staff to determine whether implementation of the proposed modifications will: 1) allow the Henrietta Combined-Cycle Power Plant to operate in a safe, efficient and reliable manner, 2) comply with applicable laws, ordinances, and regulations, or 2) result in significant environmental impacts.

This set of data requests is being made in the areas of cultural resources, public health, transmission system engineering, visual resources, and waste management. Written responses to the enclosed data requests are due to the Energy Commission staff on or before January 9, 2009 or at such later date as may be mutually agreed.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, you must send a written notice to both Commissioner Jeffrey Byron, Presiding Siting Committee Member for the Henrietta Combined-Cycle Power Plant Amendment Petition, and to me, within 20 days of receipt of this letter.

The notification must contain the reasons for not providing the information, the need for additional time, and the grounds for any objections (see Title 20, California Code of Regulations, section 1716).

If you have any questions, please call me at (916) 654-4748 or E-mail me at mtrask@energy.state.ca.us.

Sincerely,

Mathew Trask
Amendment Project Manager
Energy Facility Siting Division

Enclosures

Technical Area: Cultural Resources
Author: Beverly E. Bastian

BACKGROUND

The previous construction of the Henrietta Peaker Project (HPP) probably resulted in the disturbance of the upper soil layers of the entire site. The present GWF Henrietta Petition for Amendment does not provide information on the depth of that disturbance, nor do any of the other, prior information sources provided by GWF Energy LLC in support of the petition.

Staff, however, is concerned that undisturbed soils may exist at depths the previous excavations did not reach in the locations where the proposed new equipment would be installed. The GWF Henrietta's project description (pp. 1-1–1-2) lists several equipment installations that appear to require foundations capable of considerable weight-bearing. Staff assumes that such foundations would have to extend to some depth in the ground and additionally that overexcavation of the holes for these foundations and filling with engineered fill could be required to ensure the stability of the foundations. Thus it is possible that excavations associated with the new installation could reach previously undisturbed soil layers where intact archaeological deposits could exist.

To assess potential project impacts to possible buried archaeological resources, staff needs information on the locations and on the greatest depths to which the excavations for the previously installed equipment extended and on the greatest depths to which the proposed new equipment foundations would extend.

DATA REQUESTS

1. Please provide the depths of the excavations, from the existing finish grade, required for the following foundations for proposed equipment and modifications to existing HPP equipment, systems, and features:
    a. new once-through steam generators (OTSGs)
    b. removal of HPP selective catalytic reduction (SCR) systems stacks
    c. new steam turbine-generator (STG)
    d. new air-cooled condenser (ACC)
    e. new auxiliary boiler and stack
    f. modified HPP water piping system, fire protection system, natural gas piping system, wastewater treatment system, and stormwater drainage collection system
    g. HPP stormwater retention basin relocation and enlargement
    h. new water treatment building
    i. new generator step-up transformer (GSU)

2. Please provide a project site plan showing the locations of proposed equipment, pipelines, and underground tank installations the excavations for which would exceed 4 feet below the existing finish grade. A site plan such as Petition Figure 2-1 with the appropriate equipment and pipelines indicated by shading or other such convention would be acceptable.
3. Please provide a separate project site plan showing the locations of existing equipment, pipelines, and underground tank installations the excavations for which exceeded four feet below the existing finish grade. A site plan such as Petition Figure 2-1 with the appropriate equipment and pipelines indicated by shading or other such convention would be acceptable.

BACKGROUND

If an additional geotechnical study is planned, staff believes that could present an opportunity for the applicant to reduce the amount of archaeological monitoring that staff recommends in the revised conditions for certification that would accompany a decision from the Commission to allow the proposed project change. While it has not yet been established that the proposed project change would disturb previously undisturbed ground (which is the purpose of the previous three Data Requests), if the applicant were to provide factual field data on the archaeological potential of the undisturbed geological deposits that underlie the portions of the proposed project area that will be subject to ground disturbance, then staff would have a more objective basis for reducing possible archaeological monitoring requirements. If this possibility interests the applicant, staff recommends that a professional geoarchaeologist participate in any future geotechnical study and collect the data needed for an analysis of the potential for buried archaeological deposits at the proposed GWF Henrietta plant site. ("Professional geoarchaeologist" means an archaeologist who is able to demonstrate the completion of graduate-level coursework in geoarchaeology, Quaternary science, or a related discipline.)

Involving a geoarchaeologist in a future geotechnical study is strictly voluntary. Staff offers two options below for this participation. The greater the involvement of the geoarchaeologist in the geotechnical study, the more likely that the resulting cultural resources information would either reduce the project's archaeological monitoring requirements or focus them more efficiently and cost effectively than would otherwise be possible.

DATA REQUEST

4. Please choose one of the following options for the participation of a geoarchaeologist in the planned geotechnical study at the GWF Henrietta project site.
    a. Please provide a professional geoarchaeologist the opportunity to observe, in the field, the removal of any sediment cores by the geotechnicians, to examine the cores in the field or a laboratory for physical and chemical indices of human activity, and, where feasible, to collect chronometric

dating samples from the cores. At least one of the cores should be drilled to a depth that exceeds, by approximately 1 meter, the deepest construction excavations planned for the project. Prior to the field work, the geoarchaeologist should conduct background research on the geology and geomorphology of the project area to be able to place the stratigraphic units observed in the cores into a meaningful local sequence. The geoarchaeologist should write a brief letter report for staff that describes the fieldwork and the stratigraphic units observed, that estimates the probable age of those units, that interprets the depositional history of the units, and that assesses the likelihood that the units contain buried archaeological deposits.

b. Or, please have a trench excavated to the specifications of a professional geoarchaeologist in the part of the proposed project site where project excavations are expected to extend to the greatest depth. Prior to the field work, the geoarchaeologist should conduct background research on the geology and geomorphology of the project area to be able to place the stratigraphic units observed in the trench into a meaningful local sequence. Have the geoarchaeologist record reasonably detailed written descriptions of the lithostratigraphic and pedostratigraphic units in one profile of the trench. The recordation of that profile should include a measured drawing of the profile, a profile photograph with a metric scale and north arrow, and the screening of a small sample (three 5-gallon buckets) of sediment from the major lithostratigraphic or pedostratigraphic units in the profile, or from two arbitrary levels in the profile, through ¼-inch hardware cloth. Soil humate samples for dating the profile's stratigraphic sequence should also be collected, as appropriate. Have the soil humate samples assayed at a professional radiocarbon laboratory, per the geoarchaeologist's instructions, and have the results provided to the geoarchaeologist. The geoarchaeologist should write a brief letter report for staff that describes the fieldwork and the stratigraphic units observed, estimates the probable age of those units, interprets the depositional history of the units, and assesses the likelihood that the units contain buried archaeological deposits.

BACKGROUND

The previous cultural resources investigations for the Henrietta Peaker Project (HPP) resulted in a final Cultural Resources Report (Brian Hatoff and Heather Dudock, "GWF Henrietta Peaker Project Final Cultural Resources Report, Condition of Certification CUL-3," prepared by URS for the California Energy Commission, July, 2002) that cites some cultural resources forms and a cultural resources survey report that staff has been unable to find in either the materials submitted by the applicant or in the HPP files retained by the Energy Commission. Staff needs to review these materials to complete its identification of both potential cultural resources and potential project impacts. If copies of these materials cannot be obtained from the HPP's previous cultural resources consultant, staff notes that they were filed at the Southern San Joaquin

Valley Information Center of the California Historical Resources Information System (CHRIS) and should be obtainable there.

DATA REQUESTS

5. Please provide copies of the Department of Parks and Recreation Form 523 (DPR 523) site records previously completed/updated by the HPP cultural resources consultants for the resources listed as a-d, below. HPP-2 and HPP-4 are transmission lines, probably the paired 230-kV Gates-McColl and Gates-Gregg transmission lines and the co-located 115-kV Henrietta-Kingsburg and 70-kV Henrietta-Tulare Lake transmission lines, but staff does not have information on which is HPP-2 and which is HPP-4.
   a. HPP-1 (Henrietta Substation);
   b. HPP-2;
   c. HPP-3 (70-kV Henrietta-Lemoore NAS [Naval Air Station] transmission line); and
   d. HPP-4.
6. Please provide a copy of the following addendum to the HPP AFC: URS, "Henrietta Peaker Project Cultural Resources Technical Report Addendum 1, Appendix C (Telephone Line)," 2002.

Technical Area: Public Health
Author: Alvin Greenberg

BACKGROUND

The Petition to Amend did not provide a health risk assessment for the diesel emissions from construction activities nor did it provide diesel particulate matter (DPM) emission factors for the equipment that will be used. While staff understands that project construction emissions are short-term and may indeed pose an insignificant risk to public health as the Petition states, staff needs to verify this by reviewing the DPM emission factors for construction activities.

DATA REQUESTS

7. Please provide DPM emission factors for construction activities in pounds per day and tons per year. This value can be submitted as a single number estimate of total emissions from all sources.

Technical Area: Transmission System Engineering
Author: Sudath Arachchige and Mark Hesters

INTRODUCTION

Staff needs to determine the system reliability impacts of the project interconnection and to identify the interconnection facilities including downstream facilities needed to support the reliable interconnection of the proposed Henrietta combined-cycle power plant (Henrietta Plant). The interconnection must comply with the Utility Reliability and Planning Criteria, North American Electric Reliability Council (NERC) Planning Standards, NERC/Western Electricity Coordinating Council (WECC) Planning Standards, and California Independent System Operator (California ISO) Planning Standards. In addition the California Environmental Quality Act (CEQA) requires the identification and description of the "Direct and indirect significant effects of the project on the environment."

For the compliance with planning and reliability standards and the identification of indirect or downstream transmission impacts, staff relies on the System Impact Study (SIS) and Facilities Study (FS) as well as review of these studies by the agencies responsible for insuring the adjacent interconnecting grid meets reliability standards, in this case, Pacific Gas and Electric (PG&E) and/or California ISO. The studies analyze the effect of the proposed project on the ability of the transmission network to meet reliability standards. When the studies determine that the project will cause the transmission to violate reliability requirements the potential mitigation or upgrades required to bring the system into compliance are identified. The mitigation measures often include modification and construction of downstream transmission facilities. The CEQA requires environmental analysis of any downstream facilities for potential indirect impacts of the proposed project.

BACKGROUND

- Staff requires the SIS, (and or FS),and one line diagrams to identify potential downstream transmission facilities that may require due to interconnection of the Henrietta Plant to the California ISO grid and to determine the interconnection would comply with the NERC/WSCC and /or Utility planning standards and reliability criteria.

DATA REQUESTS

8. Please provide a System Impact Study for the Henrietta Combined-Cycle Power Plant. The Study should analyze the system impact with and without the project during peak and off-peak system conditions, which will demonstrate conformance or non-conformance with the utility reliability and planning criteria with the following provisions:
    a. Identify major assumptions in the base cases including imports to the system, major generation and load changes in the system and queue generation.

b. Analyze system for N-0, important N-1 and critical N-2 contingency conditions and provide a list of criteria violations in a table showing the loadings before and after adding the new generation.

c. Analyze the PG&E system for Short Circuit currents with and without the Henrietta Plant at strategic buses for three-phase and single line to ground faults. Submit the following along with a summary of the results.

d. Analyze system for Transient Stability and Post-transient voltage conditions under critical N-1 and N-2 contingencies, and provide related plots, switching data and a list for voltage violations in the studies. Provide a list of contingencies evaluated for each study.

e. List mitigation measures considered (required) and those selected for all criteria violations.

f. Provide electronic copies of *.sav and *.drw PSLF files.

g. Provide power flow diagrams (MW, % loading & P. U. voltage) for base cases with and without the project. Power flow diagrams must also be provided for all N-0, N-1 and N-2 studies where overloads or voltage violations appear.

9. Provide a one-line diagram for the existing PG&E 70 kV Henrietta Substation after interconnection of the modified project. Show the existing bay arrangement of the equipments with ratings such as breakers, disconnect switches and relays, etc. which are required to interconnect the project.

Technical Area: Visual Resources
Author: Marie McLean

BACKGROUND:

To comply with Appendix B (g) (6) (F) of the Energy Commission's siting regulations, as well as to ensure a comprehensive visual review of the existing site, applicants are required to provide full-page color photographic reproductions of the existing site.

According to Section 3.12.1, Environmental Baseline Information, in the Petition for License Amendment, the exiting site will be expanded within the existing site fence line.

DATA REQUEST

10. Please provide full-page color photographic reproductions of the existing site, including expansions. Please clearly identify all expansion areas as to their use; for example, construction, laydown, and parking.

Technical Area: Waste Management
Author: Ellie Townsend-Hough

BACKGROUND

Staff reviews the capacity available at off-site treatment and disposal sites and determines whether or not the proposed power plant's waste would have a significant impact on the volume of waste a facility is permitted to accept. Staff uses a waste volume threshold equal to 10 percent of a disposal facility's remaining permitted capacity to determine if the impact from disposal of project wastes at a particular facility would be significant. The California Integrated Waste Management Board provides guidance in their "Construction and Demolition and Inert Debris Tools and Resources Kit" which provides information on waste materials, densities, and methods for calculating waste volumes. This guidance can be found at http://www.ciwmb.ca.gov/leatraining/Resources/CDI/Tools/Calculations.htm.

Landfill capacities, in cubic yards, are identified in Amendment Section 3.13.1.2. Although Tables 3.13-1, 3.13-2, and Table 3.13-3 of Section 3.13 from the Amendment provide information on the estimated quantities of wastes generated during construction and operation, they do not provide a total volume of waste that would be generated during construction and operation. Therefore, staff cannot compare the volume of waste associated with the proposed GWF Henrietta Combined-Cycle Power Plant with the remaining volumetric capacity at potential landfill disposal sites.

DATA REQUESTS

11. Please provide information on the total volume of waste, in cubic yards, that will be generated during construction and operation.